Members Of Hawaiian Sugar Planters' Association Who Are Attending Annual Convention

PERMANENT HOMES FOR 'INCURABLES' ARE RECOMMENDED

Doctor Sinclair Shows Vital Necessity of Legislation To Provide For Afflicted

Charity and Social Workers Hear Unusual Appeal In Interest of Humanity

A vigorous appeal for the adequate care of "incurables" was made yesterday afternoon by Dr. A. N. Sinclair. Appearing before a meeting of charity workers interested in social welfare legislation, Doctor Sinclair read a paper in which he uncovered the present conditions to show the vital need of some provisions being made for the unfortunate victims who have no hope of recovering from their diseases.

The meeting of the legislative committee of the associated charities, and others interested in the work it is undertaking, was especially to hear this paper of Doctor Sinclair, which, no doubt, will be the basis of a bill to be introduced before the next legislature, as one of several to be put in as Associated Charities measures.

Two Classes of Indigents

Doctor Sinclair in beginning his paper struck a division line between two classes of indigent incapables. He explained it this way:

"There are two classes of indigent incapables at the present time who need the assistance of others; they are those suffering from incurable disease and those of deficient or impaired mentality."

The patients suffering from incurable diseases, except tuberculosis, should be sent to Leahi Home on a one dollar and a half basis, he suggests, thus doing away with the need of a new institution. For those suffering from mental deficiencies—chronic epileptics, imbeciles, victims of infantile paralysis, and blind and others—he would have a special ward of the insane asylum—not in the same building as the asylum, but on the grounds.

Present Situation Critical

Regarding his plan, he said at the close:

"I realize fully that the figures in these schemes are apparently high: an extra $1500 a month for Leahi Home and $1000 a month for a further institution, but the present situation is a critical one and something must be done to meet the crisis. Efforts in the past to have the county take up the burden have met with failure owing to lack of funds. If the county has no funds to do this needed work and as it must be done through government aid, it should be laid before our Territorial Legislature in proper form, and its consideration and aid requested."

Facilities at Home Ample

Elsewhere in the paper he said:

"There are at present in the home twenty-one incurable cases, twenty male and one female, while the home has accommodations for thirty-five males and five females, which latter will be increased shortly on completion of intended additions.

"Thus the capacity of the home may be said to be fully twice its present number of inmates, and as only about five cases have been refused, and these only temporarily, during the last year, its capacity is unquestionably ample. The buildings at present in use thus save the expense of a new institution, if such were contemplated, and the present executive force at the home could easily handle all cases liable to require admission, thus saving considerable of the overhead expense.

"There is, however, a lack of financial ability of the home to care for a greater number than at present are being looked after. The home has a waiting list of from five to ten cases constantly, some of these suffering from tuberculosis.

MANAGERS DEBATE PLANTATION PROBLEMS

(From Thursday Advertiser.)

PRESIDENT J. M. Dowsett called the second day's session of the sugar planters' convention to order at 9:15 o'clock yesterday morning. He asked C. F. Eckart, chairman of the committee on cultivation and fertilization of unirrigated plantations to present his report and lead the debate.

The report having been printed was considered read. Mr. Eckart said that the question of stripping was probably the most important subject considered by his committee and would be discussed first. "The question is to strip or not to strip," he said. "Managers are not unanimous, many of them appearing to doubt the value of the elaborate tests made by Walter P. Naquin at Olaa in 1909."

Naquin's Experiments

Among other things Mr. Naquin determined that cane which rooted from the joints inside the leaf sheaths was richer in sucrose than stripped cane not thus rooted. The trash on unstripped cane does undoubtedly increase the fibre one and one-half per cent but the increase in sucrose more than balances this loss.

In twelve tests made on unirrigated plantations there was an average gain of 7.3 per cent in the yield of unstripped cane per acre. Counting forty tons per acre as an average yield this amounted to about three tons of cane, equal to .35 tons of sugar—a clear gain—not to mention the saving in the cost of stripping.

Mr. Eckart said that the saving on the twelve plantations where these experiments were undertaken would save $100,000 worth of sugar per annum if the lessons taught were adopted.

At Olaa they strip once in spring just before applying the fertilizer. The trash and weeds are piled between the cane rows as a mulch. The charge against the stripping of the cane was only eighty-five cents per acre.

J. T. Moir said that the Onomea practice was the same as Olaa.

What the Managers Say

Mr. Eckart then quoted from his report, as follows:

"Stripping: This practice which has been the subject of much discussion at former annual meetings still has its staunch advocates among the unirrigated plantations.

"At the plantation of the Hutchinson Plantation Co., located in the Kau district, Mr. Gibb finds that stripping is not necessary.

"Mr. Moir of Onomea is in favor of giving a light stripping in spring before fertilizing—taking off the bottom binder leaves, so that the cane stalk may become hardened and will stand more rough and wet weather. He also believes that a later stripping will many a time prevent the cane from falling over as there will be fewer leaves to hold the rain and will consequently be less top heavy.'

"At Olaa, the lowermost dried leaves are removed when weeding or cleaning out for the last time. This trash when thrown into the kuakuas makes a light mulch which reduces the chances for a straggling weed growth to develop before the cane receives its last dressings of fertilizer in the spring and early summer of the second season. The operation is thus about two-thirds weeding and one-third stripping; for the 1915 crop this stripping amounted to $0.85 per acre on an average.

"Mr. Webster of Pepeekeo considers stripping beneficial in the Hilo district and remarks: 'In the earlier stages it allows light and air to get at the roots and belated shoots which would otherwise die or rot off. With bigger or older cane it allows any little sunshine we may get a chance to ripen the cane and put sugar into it.'

"Mr. Henderson of the Hawaii Mill Co. in writing about the practice on his plantation says: 'I find that up here we have got to strip. During the winter months and early spring the cane grows very slowly, consequently it does not shed its leaves, and with the wet climate we have here the cane roots right through, which is bound to check the growth and if not cleared off would make very expensive harvesting and very unprofitable milling.'

"Mr. McLennan of the Laupahoehoe Sugar Co. considers it 'necessary to remove the dead leaves from the cane stalks when these latter are from one foot to two feet high.'

"Mr. Pullar of Honomu, in commenting on the practice, remarks: 'I am in favor of stripping cane twice. The advantage of the first stripping which is done from January to May or June is that the bottom leaves and any weeds that may be present are removed and the cane is then in a good condition for applying a spring dressing of fertilizer. The cane leaves stripped off make a mulch in the furrow and prevent to some extent the washing of the soil in the usual heavy winter rains. Stripping off the bottom leaves also helps to keep the cane from throwing out rootlets at the joints, and permits the leaves higher up on the stick to fall off when they have completed their functions.

Stripping and Labor Supply

"'The second, and sometimes third stripping, are very often done in slack time when labor has to be employed. Harvesting is much easier after the cane has been stripped. I think stripping is necessary where cane is heavy as it lightens the stick, and even if it does fall down later on there is a body of trash between it and the ground, and it does not deteriorate nearly as quickly as it would if unstripped. If we could grow an equal standing crop over all our fields and had less rain, stripping would not be so important, but under the weather and other conditions obtaining here, I am in favor of carrying on this work.'

"Mr. John Hind of Hawi, Kohala, writes: 'We favor stripping when it can be done during the non-grinding season, when work for labor is scarce and weather not too dry. The stripped cane keeps in better condition, cutting easier, and requiring less labor (which is a consideration during the grinding season) to say nothing of cane arriving at the factory in more attractive shape.'"

Mr. Hall of Niulii, Kohala, enumerates six reasons for stripping, namely:

(1) "Unthatching and allowing rain fall to get to the ground,

(2) "Mulching the ground and keeping in moisture,

(3) "Cane riper, less rotten and rooted joints at harvest,

(4 and 5) "Cutting easier—less danger of fire,

(6) "Work for wet days when some other operations are not worth cost."

On this subject Mr. Forbes of the Waiakea Mill Company writes:

"Stripping from time to time has had its share of discussion as well as demonstration, which in many cases has resulted in abandonment of the operation. Under certain conditions much of the cost of stripping may be wasted money; at the same time I should hesitate very much to entirely stop stripping at Waiakea. Climatic conditions have a great bearing, I believe in deciding the profit or loss of stripping or non-stripping.

Arguments for It

"I offer the following arguments in favor of stripping: First, that in the early stages of a cane's growth the fine filaments on outer side of leaf sheath do not have the power to bristle out and displace leaf now maturing on adjoining lower joint; that is noticeable on Caledonia as well as several other varieties. Every ten days a new leaf forms, while at some intervals under normal conditions a lower leaf has performed its functions and dies. Here we now have after a few months' growth a mass of dead leaves clinging to the stem, affording every facility as a moisture container and a natural nursery for aerial roots, which soon show out at every nodule.

"Where this condition exists do those air roots injure the cane as a sugar producer? I would answer, most assuredly. Hence my belief in a first stripping when the canes have formed not more than eight or ten joints. It is very noticeable when cane is cut by contract that a contractor of experience will cut cane at a considerably lower rate per ton if the cane is stripped than he will if it is unstripped, and the cane grown in a locality where weather conditions for the burning of cane ahead of harvesting is sometimes uncertain. Again, if we are to follow what is considered at least 'good practise' in cane farming; bury all dead or live cane leaves in our soil, amounting to several dollars' worth per acre in nitrogen contents, our most expensive fertilizer, together with the valuable humus lost where burning is practised. Where are the gains? Thus my argument for a final stripping."

It would thus seem as if on unirrigated plantations, at least, the general consensus of opinion remains pretty much the same as in the past. The writer, in this respect, is with the small minority and still holds the same views which were expressed by him at the meeting of 1911.

The Other Side

President Dowsett asked about the relation of stripping to labor supply.

Mr. Eckart said that the plantations ought not to hire laborers just to keep men busy. "If stripping cane is a harmful practise it would be better not to strip. If the managers believe they must keep their men, use them for road-building or some other work.

"It would be better to hire the men to shift a pile of lumber back and forth across the road than to put them at stripping cane. There would be more profit in it for the plantation."

John Hind said that it is necessary for the planters to retain their laborers and give them work. He did not believe it was safe to burn fields, and stripping is necessary.

Alexander Morrison of Honokaa said that they do not strip, and that next year they will adopt the Olaa practise. This year they could not strip because of weather conditions. John Hind said he only strips unirrigated cane. The irrigated fields are not stripped.

Harvesting Costs

J. M. Dowsett wanted to know the difference in the cost of harvesting. Mr. Eckart said that in field trials it has cost one and a half cents more per ton to cut unstripped than stripped cane. "Actually we pay seven cents more per ton, or enough to guarantee a minimum wage of ninety cents a day to the cutters. This year if cost us 20.1 cents per ton to cut stripped cane, as against 22.2 cents unstripped. The men averaged 3.38 tons unstripped cane per day, as against 3.38 tons of stripped. The cash gain in yield per acre was $21," he said.

John Scott said that there was too much rotten cane left on unstripped fields. In fluming cane with the trash on it the flumes clogged and delivery to the mill was liable to be poor.

Mr. Eckart said that even with the increase in rotten stalks the practise yields a gain. "If results of experiments are not to be accepted by the managers, what is the use of spending money in making field tests?" Mr. Eckart asked. "The jamming of trashy cane in fluming is a minor consideration. There is a gain of two or three tons per acre, cane that we get without spending anything to get it. It is cheap cane—pure velvet."

Experience Abroad

John M. Ross, David Forbes, John Scott and William Pullar reiterated their faith in the stripping practise. James Webster and J. T. Moir stood up for the Olaa practise.

Mr. Eckart referred to the results of stripping experiments in Fiji, Australia, Formosa and Java. In Fiji ninety per cent of the field tests had been favorable to non-stripping.

Doctor Lyon corroborated this view and told of the extensive experiments on the Labassa plantation in Fiji, where ninety field tests were made over a series of years. One test only was favorable to stripping; eighty-nine were against the practise.

Mr. Eckart said the Naquin tests were the most careful and comprehensive field experiments ever conducted in Hawaii. Alternate plots were laid out, twenty rows wide and 500 feet long, and the samples for testing were taken from the middles. "It may be true," he said, "that in field practise there will not be a gain every time, but in an average of years and seasons there will be a gain."

Fertilizer Problems and Results

Taking up the question of fertilizers, Mr. Eckart said that rules that have developed from practise are that the best fertilizer must be put on the best fields and the best cane; the fertilizer must be split up over the three crops, using half the first year, a quarter the second and the balance on the third crop.

Press cake and stable manures must be applied to poor soils, where commercial fertilizers do not give results. In practise uniform fertilization is the best. "We are after cash profits, not percentages of increase in crop yields," he said.

J. T. Moir stated that he approved these recommendations, but thought tankage should be used on poor soils.

Artificial Ripening

Mr. Eckart said there is a big field for experimenting with methods to increase the sucrose in the canes at the beginning of the harvest. Something is wanted to check the growth of the cane and force artificial ripening. If the sucrose can be increased from twelve to thirteen per cent, that is an eight per cent gain in sugar yields. It has been proved that double phosphoric acid salts check growth, hasten ripening and increase the sucrose content. He recommended the use of 400 pounds of superphosphate in one dose just before the harvest, to be followed by potash and nitrogen in the spring.

Experimentally, he has found that a 300-pound dressing of nitrate of soda, applied fractionally through the cold winter season increased yields fully thirty per cent. "Use 100 pounds in October, 100 in December and 100 pounds in February," he said.

Iodine Salts

"The iodine salts have yielded remarkable results. In Japan the application of one-third of an ounce of iodine per acre increased the yield of a daikon crop thirty-one per cent. Iodine is a stimulant for many crops. It occurs as what we have considered an impurity in Chile nitrate, and it may be that part of the stimulating effects of a dressing of saltpetre is due to the iodine."

Speaking of cane varieties, he said that what is wanted is a rapid grower that will close in early and cut weeding costs. "H 109" had seemed to be just what Olaa needed, but unfortunately it tasselled when one year old. He said the planters would like a cane with Caledonia hardiness and Lahaina quality."

Trash and Weeds

The arsenate of soda weed-killer has been pretty well tried out. In settled dry weather it works and cuts out two-thirds of the weeding costs. In rainy weather it does not work.

Trash conservation on the fields is a business proposition, Mr. Eckart stated. James Webster has proved this beyond question, and the practise should be generally adopted. "The cane stool has about one mile of fine roots if the sum total of all is counted, but the roots are massed and do not extend far. Conserving the trash and burying it keeps the soil warm, keeps down weeds, adds nitrogen and retains soil moisture. It is the best agricultural method," Mr. Eckart said.

Alonzo Gartley said there has been too much cultivation. It is weeding that is wanted. Mr. Eckart then discussed at much length the use of artificial materials to keep down weed growth between the cane rows. He agreed with Mr. Gartley that too much cultivation is not good, if the weeds can be otherwise controlled.

Breeding and Selection of Canes

A discussion of the relative merits of the selection or breeding of new strains and varieties was then entered into by H. P. Agee, A. Gartley and Doctor Lyon. Mr. Gartley said he was opposed to the breeding of new seedlings because of their enormous variability. They are unstable and unsatisfactory. "I have no confidence in the breeding of new varieties," he said. "Selection of bud variants of well established and long proved varieties opens up the best field for improvement of canes. We must get canes that will give more sucrose and greater purity. Test out the stools in the field and when ideal plants are found propagate them."

Director Agee said that such an experiment would take ten to twenty years. Doctor Lyon explained the theory of bud variation and the transmission of inherited characters. He acknowledged that no dependence can be placed on breeding varieties. Canes do not come true from seed. Some varieties, like Caledonia cannot be used in breeding work because the flowers are sterile.

The morning session closed with remarks by James Gibb on the necessity of introducing power cultivators and other small machines to release hand labor.

Sugar and By-Products

At the afternoon session Gay'or J. P. Wilcox read the report of the committee on cultivation and fertilization of irrigated plantations. There was no discussion.

F. M. Eh-horn, territorial entomologist, explained two recent Federal laws governing the importation of cane into Hawaii. Above were ordered printed in The Record.

The Mascschaert Mill

R. S. Norris then led the discussion of the report of the committee on manufacture of sugar and utilization of by-products.

Doctor Norris said that the great advance of the year was the invention of the Maesschaert Groove roller and of a number of others which have followed this general idea. The average extraction in Hawaii has increased one and a half per cent due to the general adoption of the Maesschaert system. This is a clear gain of over 9000 tons of sugar in one year.

Hawaiian extraction is still below the average practise in Fiji and Australia, he said. They use maceration baths and more water, sometimes as high as volume for volume with the juice. Mr. Norris said that improvement in mill feeding is desirable and would increase the capacity of the mills.

J. T. Moir said that with the Maesschaert roll doing such good work in bettering the extraction and decreasing the moisture of the bagasse the mill engineers should reverse their mill practise. "Accelerate the speed of the first mill," he said, "and slow up the last two sets. The last roll hasn't enough work to do now unless we run it slower and keep the bagasse under pressure for a longer period.'

John Scott said that it has been his practise this year since installing the Maesschaert system. He has reduced the speed of the last set from fifty-four to thirty-two revolutions and has averaged 97.63 extraction for the entire crop. Cane to feed to the best advantage ought to be shredded or finely chopped, he said.

Juice Clarification

Mr. Norris quoted from his report on the clarification of juices, "A new system of delivering juice into settling tanks is being tried in several factories along the Hilo coast. The juice from the heaters passes first into the top of a tall cylindrical tank, from which it flows out of the bottom and in through the bottoms of the settling tanks. In this way air and other gases are eliminated in the distributing tank and the muddy juice flows into the settling tanks with as little disturbance as possible. This simulates, in a way the old method of settling in tanks used for both heating and settling."

Evaporation and Pre-Heating

The adoption of auxiliary heating and evaporation, first applied during the 1912 season by the Hawaiian Agricultural Company, is being gradually extended to other factories, Mr. Norris said. There is, of course, nothing new in the sugar industry in the use of pre heaters, but it is new to these Islands.

Pre-heating the clarified juice before it enters the evaporator increases the capacity of evaporators in two ways. It is usual to build evaporators with the same amount of heating surface in each cell, so that under average conditions the cells are of equal capacity. Whenever the juice enters the first cel below the boiling point a certain amount of the heating surface in that cell is required to bring it up to the temperature at which it will boil under the pressure in the cell.

This means a reduction in the available heating surface, not only in the first cell, but to the same extent in the other cells also. If for any reason only half the heating surface is used in the first cell of an evaporator, made up of cells of equal capacity, then only half the heating surface in all the other cells is made use of. The juice entering the evaporator, unless pre-heated, is always more or less below the boiling point.

A pre heater will, therefore, increase the capacity of an evaporator by making all of the heating surface of the first cell available. There is, besides this, a further increase in evaporation, through pre-heating, when the juice is raised above the point at which it will boil under the pressure in the first cell. In this case when released into the first cell part of the juice will evaporate spontaneously.

The advantage derived from pre-evaporation, where the vapors are used for juice heating and in vacuum pans, comes from the extension of the principle of multiple effect evaporation to other process than thin juice evaporation.

William Pullar said that pre-evaporation has increased his output ten tons of sugar per day.

Refinery Problems

F. A. Badenhaim of the Crockett Refinery then gave an interesting account of the refining process and of refinery machinery. He said that besides such accidental incumities as watches, knives, bolts and units, the refiners had trouble on account of the lack of uniformity in size of grain, color due to caramel and iron, and variation in polarization of sugars of different plantations. Syrup and mechanical losses were discussed at length.

The local manufacture of sugar bags by the plantations—J. P. Cooke, J. F. C. Hagens, F. Weinheimer and Mr. Norris threshed out all phases of the subject. C. Hedemann said that the Cuba Company will ship its sugar in bulk this year, according to advices recently received.

Molasses Clarification

G. P. Wilcox, E. Kopke, A. Gartley and Mr. Norris then debated the clarification of molasses. The centrifugal process applied to first molasses at Kealia helps crystallization, Mr. Wilcox said; is very inexpensive to operate, and has increased mill capacity forty tons per hour. The Kealia juices are very gummy. He has been able to overcome this by using carbonate of soda, one pound to 400 or 500 gallons of molasses. The centrifugal then takes out the precipitated gums.

Passing to the consideration of by-products, Mr. Norris said artificially drying bagasse for fuel has not been a success because it is too finely ground and goes up the chimney before combustion takes place.

Molasses Fuel and Fertilizer

Molasses was the topic the rest of the afternoon.

Mr. Norris said that "shipping it away or selling it robs Hawaii. All the molasses should be used here, not sold."

GOVERNOR WRITES OPINION ON RAPID TRANSIT CHARTER

Declines To Supply Press With Copy and Public Utility Chairman Follows Suit

Much interest attaches to the fact that Governor Pinkham yesterday addressed a long letter to the public utilities commission and L. Tenny Peck, president of the Honolulu Rapid Transit and Land Company. The letter bears on the question of the proposed extension of the Rapid Transit charter as embodied in the bill passed by the legislature and now pending in congress.

Governor Pinkham was asked by The Advertiser for a copy of the letter.

Has Letter Hidden Away

"Got it hidden away," said the Governor, "but I told them in the letter: 'You are at liberty to make such use of this letter as you deem proper.'

"The Governor considers," he added, "that the communication is the result of a private request of the public utilities commission and L. Tenney Peck, president of the Honolulu Rapid Transit and Land Company."

Acting-Chairman J. N. S. Williams of the utilities commission was asked to release the letter for publication. He said that he could not do so until the commission had had a chance to consider it in meeting and that such a meeting would be held at two o'clock this afternoon in the office of the commission, fifth floor of the Stangenwald building.

A meeting of the directors of the Rapid Transit Company has been called for nine o'clock this morning to consider the Governor's letter.

H. Gooding Field, the accountant who figured conspicuously in the delving into the secrets of the great financial scandal of the County of Hawaii, was commissioned recently by Governor Pinkham to go over the books of the Rapid Transit Company and Mr. Field has been at this undertaking for some weeks.

Is Governor Opposed to Company?

It is believed that Governor Pinkham refused to approve wholly of the proposed extension of the charter of the company. The bill for this extension of the charter has been before congress for a long time, the delay in passing having held up all the company's plans for double tracking much of the system and making other authorized improvements.